

NIMS LEVEL I CAPSTONE
COURSE SYLLABUS

Revised 01/04/2012

C - L - CR
1 - 9 - 4.0

COURSE NUMBER: MTT 285

PREREQUISITE(S): MTT 275

CO-REQUISITE(S): MTT 254

COURSE DESCRIPTIONS This capstone course will provide practice and performance necessary to complete all Level I projects outlined by the National Institute for Metalworking Skills (NIMS). This course will include projects and written examinations required by NIMS to meet Level I accreditation.

TEXTBOOK(S): Oberg, Erik and Jones, Franklin D. and Horton, Holbrook L.
And Ryffell, Henry H. 27 Edition Machinery Handbook
New York: Industrial Press Inc. 2000

REFERENCE(S): None

OTHER REQUIRED MATERIALS, TOOLS, AND EQUIPMENT: Clear Safety Glasses
Scientific Calculator

METHOD OF INSTRUCTION: This course will be taught with limited instruction and will require the student to meet the NIMS standards required for credentialing.

COURSE NOTES: Students will be required to earn at least 3 Level I Manual Machining Credentials to fulfill course requirements. Machining projects must be complete by March 22. Online exams will begin on April 9.

GRADE CALCULATION METHOD: 7 Credentials = A
5 Credentials = B
3 Credentials = C

**ATTENDANCE
POLICY:**

Students are responsible for punctual and regular attendance in all classes, laboratories, field trips, and other class activities. The College does not grant excused absences; therefore, students are urged to reserve their absences for emergencies. When illness or other emergencies occur, the student is responsible for notifying instructors and completing work missed.

Students are tardy if not in class at the time the class is scheduled to begin. Tardy students are admitted to class at the discretion of the instructor.

If you have attended at least one session during the first week of the semester you are responsible for dropping yourself from the class. It is the students' responsibility to withdraw from a course. A student who stops attending class and fails to initiate a withdrawal will remain on the class roster.

If you do not attend a class session during the first week of class you will automatically be dropped by the College.

A student who does not complete an assignment, test, or final exam in the course will receive a zero for each missing grade and the final course grade will be calculated accordingly.

Absences for Religious Holidays: Students who are absent from class in order to observe religious holidays are responsible for the content of any activities missed and for the completion of assignments occurring during the period of absence. Students who anticipate their observance of religious holidays will cause them to be absent from class and do not wish such absences to penalize their status in class should adhere to the following guidelines:

1. Observance of religious holidays resulting in three or fewer consecutive absences: Discuss the situation with the instructor and provide written notice at least one week prior to the absence(s). Develop (in writing) an instructor-approved plan which outlines the make-up of activities and assignments.
2. Observances of religious holidays resulting in four or more consecutive absences: Discuss the situation with the instructor and provide the instructor with written notice within the first 10 days of the academic term. Develop an instructor-approved plan which outlines the make-up of activities and assignments.

ACADEMIC CONDUCT:

ACADEMIC DISHONESTY: Students are expected to uphold the integrity of the College's standard of conduct, specifically in regards to academic honesty. All forms of academic dishonesty including, but not limited to, cheating on assignments/tests, plagiarism, collusion, and falsification of information will call for disciplinary action. Disciplinary action imposed may include one or more of the following: written reprimand, loss of credit for assignment/test, termination from course, and probation, suspension, or expulsion from the College. For further explanation of this and other conduct codes, please refer to the Student Handbook.

CELLULAR PHONES AND PAGERS/BEEPERS: Cellular phones, pagers and beepers are not permitted to be turned on or used within the classroom. Use of these devices during classroom time will be considered a violation of the student code as it relates to "disruptive behavior."

CLASS/LAB PROCEDURES:

Students are required to do original work on all graded exercises. They are expected to bring all necessary equipment, text, etc. to classes and labs. Labs conducted at scheduled times, and for appropriate credit lab reports are due at specified times. Labs are scheduled/performed for the experience of the endeavor; therefore attendance is mandatory for a grade.

Students are required to:

1. Wear safety glasses while operating equipment.
2. Treat all equipment, tools, and instrument with proper care.
3. Thoroughly clean equipment and work area after each lab exercise.
4. Insure that all tools, etc. are returned to their proper places after each use.

ACCOMMODATIONS:**Inclement Weather Schedule:**

- Check SCC Web Site: www.sccsc.edu
- Tune to **Channel-7** Local T.V. Station (CBS)
- Tune to an FM/AM Local radio station

Students who need special accommodations in this class because of a documented disability should notify Student Disability Services by calling (864) 592-4818, toll-free 1-800-922-3679; via email through the SCC web site at www.sccsc.edu/resources/disabilities; or by visiting the office located in the East Building Room 30-B on the SCC Central campus. Contacting Student Disability Services early in the

semester gives the College an opportunity to provide necessary support services and appropriate accommodations.

**COURSE
COMPETENCIES &
OBJECTIVES:**

Upon satisfactory completion of this course, the student will be able to:

- I. Explain the NIMS Level I Credentialing Process
 1. Describe the Level 1 Projects .
 2. Understand and meet the Inspection Criteria for the Level I Prints.

- II. Produce the Level I Projects assigned by the Instructor.
 1. Plan and complete all Machining requirements to produce Level I Projects.
 2. Inspect all Completed Projects to assure NIMS Standards.

- III. To successfully complete the online exams required by NIMS to fulfill Level I accreditation. A minimum of 3 manual machining credentials must be earned to fulfill course requirements.
 1. Measurement, Materials & Safety Skills
 2. Benchwork & Layout
 3. Vertical Milling
 4. Drill Press
 5. Surface Grinding
 6. Turning – Between Centers
 7. Turning – Chucking
 8. CNC Turning Operator
 9. CNC Milling Operator
 10. CNC Milling
 11. CNC Turning